



**DEPARTMENT OF DEFENSE**

**Department of the Air Force**

**[ARY-230609A-PL]**

**Notice of Intent to Grant a Partially Exclusive Patent License**

**AGENCY:** Department of the Air Force, Department of Defense.

**ACTION:** Notice of intent.

**SUMMARY:** Pursuant to the Bayh-Dole Act and implementing regulations, the Department of the Air Force hereby gives notice of its intent to grant a partially exclusive (the field to include water-based search and rescue, combat search and rescue and military applications, tow surfing and recovery for surfers, fishing and recreation, on water autonomous surface vessel for intelligence, surveillance, and reconnaissance (ISR) and monitoring of oil spills and oil platforms, autonomous platform for towing vessels) patent license agreement to Shark Rescue Systems, LLC, a corporation of the State of Ohio, having a place of business at 2946 Arthur Rd., Springfield, OH 45502.

**DATES:** Written objections must be filed no later than fifteen (15) calendar days after the date of publication of this Notice.

**ADDRESSES:** Submit written objections to Dr. Griffin Romigh, Lead, Office of Research and Technology Applications (ORTA), AFRL/Ry – Sensors Directorate, Bldg. 600, 2<sup>nd</sup> Floor, 2241 Avionics Circle, Wright-Patterson AFB, OH 45433; Phone (937) 713-3494; or E-mail: [griffin.romigh@us.af.mil](mailto:griffin.romigh@us.af.mil). Include Docket No. ARY-230609A-PL in the subject line of the message.

**FOR FURTHER INFORMATION CONTACT:** Dr. Griffin Romigh, Lead, Office of Research and Technology Applications (ORTA), AFRL/Ry – Sensors Directorate, Bldg. 600, 2<sup>nd</sup> Floor, 2241 Avionics Circle, Wright-Patterson AFB, OH 45433; Phone (937) 713-3494; or E-mail: [griffin.romigh@us.af.mil](mailto:griffin.romigh@us.af.mil).

**Abstract of patent application(s):**

1.) A component that can be detachably fitted to a watercraft to shift the center of buoyancy of the watercraft and render the watercraft self-righting. The component uses quick release attachment and detachment fixtures so that a person can easily remove the component and thereby free-up space for passengers on the watercraft. The component includes a non-inflatable buoyant structure made of a buoyant material or materials arranged into a buoyant configuration. A watercraft with the detachable component is also disclosed, as is a method for converting a non-self-righting watercraft into a self-righting watercraft.

2.) An aquatic rescue vehicle formed by adding directional and speed controls to a watercraft along with an autonomous control system to guide the vehicle to specified waypoints is disclosed. The rescue vehicle includes search devices such as a radio direction finder (RDF) and an infrared sensor (or camera) to be used to narrow the search for an isolated person (IP). The rescue vehicle may be discharged from a larger watercraft or an airplane and autonomously set out on its rescue mission. The vehicle may first navigate to a designated waypoint near an IP, and then use signals gathered from the RDF and infrared sensor to finally locate, assist, and retrieve the IP. The vehicle also includes a self-righting mechanism so that the vehicle can complete its mission even under the most adverse conditions.

3.) Systems for air dropping a watercraft onto a body of water and automatically releasing the watercraft from a parachute and platform used during the air drop are disclosed. The air drop platform includes: a cradle for the watercraft; restraints for holding a watercraft onto the cradle when it is being air dropped; and a releasable air drop sling rigging system that includes connections temporarily joined to the cradle for an air drop sling. The restraints are temporarily joined to the cradle by a water-activated release mechanism. The rigging system includes an additional water-activated release mechanism. The restraints and the air drop sling both release from the cradle when the cradle is at least partially immersed in water upon landing on a body of water. The systems may be part of an automated search and rescue system.

**Intellectual property:**

1.) U.S. Patent Application Serial No. 17/479,108, filed on September 20, 2021, and entitled Detachable Buoyant Component for Making a Watercraft Self-Righting.

2.) U.S. Patent Application Serial No. 17/479,167, filed on September 20, 2021, and entitled Autonomous Rescue Vehicle.

3.) U.S. Patent Application Serial No. 18/167,113, filed on February 10, 2023, and entitled Automated Air Drop System and Automated Search and Rescue System.

The Department of the Air Force may grant the prospective license unless a timely objection is received that sufficiently shows the grant of the license would be inconsistent with the Bayh-Dole Act or implementing regulations. A competing application for a patent license agreement, completed in compliance with 37 CFR 404.8 and received by the Air Force within the period for timely objections, will be treated as an objection and may be considered as an alternative to the proposed license.

**Authority:** 35 U.S.C. 209; 37 CFR 404.

**Tommy W. Lee,**

*Acting Air Force Federal Register Liaison Officer.*

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